Customer No.: 31561
Application No.: 10/707,677
Docket No.: 12089-US-PA

AMEDMENTS

FOR THE CLAIMS

Claims 1-6. Cancelled.

Claim 7. (Currently amended) A multi-level memory cell, comprising:

a substrate;

a gate disposed overen the substrate;

a source region and a drain region configured in the substrate on each side of the

gate;

a tunneling dielectric layer disposed between the gate and the substrate;

a charge-trapping layer disposed between the tunneling dielectric layer and the

gate; and

a top dielectric layer disposed between the charge-trapping layer and the gate,

wherein the top dielectric layer has at least two portions from the direction of the source

region to the drain region, and each portion-hasthe portions have different thicknesses.

and wherein the tunneling dielectric layer has substantially a same thickness from the

source region to the drain region.

Claim 8. (Currently amended) The multi-level memory cell of claim 7, wherein a

material constituting the charge-trapping layer comprises silicon nitride.

Claim 9. (original) The multi-level memory cell of claim 7, wherein the cell

Customer No.: 31561 Application No.: 10/707,677

Docket No.: 12089-US-PA

further comprises a pair of spacers disposed on each sidewall of the gate.

Claim 10. (Currently amended) The multi-level memory cell of claim <u>97</u>, wherein the cell further comprises lightly doped regions configured in the substrate underneath the spacers.

Claim 11. (Currently amended) The multi-level memory cell of claim 97, wherein a material constituting the spacers comprises silicon oxide.

Claim 12. (original) The multi-level memory cell of claim 7, wherein the tunneling dielectric layer has a thickness between about 20Å to 40Å.

Claim 13. (original) The multi-level memory cell of claim 7, wherein the charge-trapping layer has a thickness between about 40Å to 60Å.

Claim 14. (Currently amended) The multi-level memory cell of claim 7, wherein a material constituting the tunneling dielectric layer comprises silicon oxide.

Claim 15. (Currently amended) The multi-level memory cell of claim 7, wherein a material constituting the top dielectric layer comprises silicon oxide.